

CULTURE AND ORAL HEALTH – A REVIEW

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ABSTRACT

Culture is often defined as coherent, shared patterns of actions or beliefs specific to named groups of people that provide basic life roadmaps or social contexts, defining behavioural norms and interpersonal relationships as well as unwritten rules for proper living. Culture is a term that can be used to refer shared patterns, knowledge, meanings and behaviours of a social group'. Every social grouping in the world has its own cultural practices and beliefs which guide its members on how they should live or behave. The list of harmful practices worldwide is long such as uvula cutting, milk teeth extraction, tooth evulsion, body decoration, piercing of oral cavity etc. These specific practices and beliefs often have strong cultural influences. These can be positive but they can also be negative. For dental health professionals dealing across cultural gaps, respect and communication are essential. Dentists who understand traditional or local health practices and concepts will be able to motivate their patients and help them to incorporate elements from various healing systems.

Introduction

Culture is a complex matrix of interacting elements that is ubiquitous, multidimensional and complex.¹ It includes everything which one generation can tell, convey or hand down to the next. It is an experience that is learned, shared and transmitted and represents a way of life.² Culture organizes the group's norms of family life, birth, childrearing, aging, and death as well as their recognition of illness and care-seeking practices around health or medical conditions. These cultural beliefs can be a barrier for accessing healthcare services. Cultural factors may have important implications for an individual's own health

and those of others for whom they provide care, such as children and the elderly.³

The Indian culture often labelled as an amalgamation of several cultures, spans across its subcontinents and has been influenced by a history that is several millennia old.⁴ This not only contributes to the cultural richness of the country, it also means that strong cultural influences may affect the attitudes and beliefs of the people towards oral health care.⁵

Oral health is important to both physical and social function.⁶ As we know oral health is an integral part of overall health status as well as the oral diseases are the most prevalent of all health problems, as efforts continue to improve the health of all citizens, oral

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health could not be overlooked .The level of dental health knowledge, ethnicity, deprivation, and education, and the lifestyle and diet choices, all

Table 1: Complications following tooth evulsion

Table 2: Different names of IOM in different countries ²⁶

Removal of teeth	Country
Dental Mutilation	Uganda, Tanzania
Primary canine enucleation	UK, France
Deciduous canine tooth bud enucleation(DCBE)	Kenya
Germectomy	Uganda
Lugbara teeth extraction	Sudan
Tooth bud extraction	Tanzania,Israel
Haifat (lancing of the alveolus over the deciduous tooth)	Sudan Ibino Ebino/Ebiino Ebinyo/Ebinnyo Tanzania Uganda Uganda
Canine follicle extirpation	Africa/Arabia (Australian term)
Tooth bud gouging / enucleation	UK
Infant oral mutilation	UK
IOM/ dental ablation	USA
Killer canine extraction	Ethiopia /Uganda

Geg	Ethiopia
Milk tooth extraction	Ethiopia

together could affect the oral health .⁷ Therefore by recognizing the potential impact of cultural differences in the value of oral health practices dental professionals must focus on culturally appropriate methods of enhancing utilization and improving the oral health of various ethnic groups.

Cultural practices around the world

The world is made of different countries with different regulations and laws. There are a total of 209 countries in the world. All these countries are multicultural with growing ethnic minority groups practicing their religions and beliefs. The best way for anybody to become educated about the world around him is to see different cultures and lifestyles. The practice of intentional mutilation of human dentition is known to have existed since ancient times in an ethnically and geographically diverse range of people and is observed among peoples living in tropical regions of the world ⁸ which includes Non therapeutic tooth extractions, breathing off tooth crown, Alteration in shape of crown by filing and chipping, Dental inlay work, Lacquering and staining of teeth and adornment purpose. Cultural, regional, geographical diversity, spiritual reasons, aesthetics or in order to' keep up with the fashion' are reflected in the various groups which investigators have ascribed to tooth mutilation customs throughout the tropical world.⁹

Non therapeutic tooth extractions (Tooth evulsion):

It is the intentional removal of one or more teeth for ritual or aesthetic reasons, or to denote group affiliation commonly involves the maxillary incisors. ¹⁰ It is commonly seen in Africa, Central and South America, Parts of South East Asia, Philippines,

Indonesia Micronesia, Melanesia, Polynesia and Australia.⁹ Today though tooth evulsion is declining in

popularity, still it is practiced among the contemporary

Table 3: Complications of Piercing

During Piercing	Immediately Following Piercing	Long-Term Complications
Haemorrhage HIV, Hepatitis, Tetanus, and other Communicable Diseases	Local Inflammation of the Tongue Trauma to Lingual Gingiva Bacteraemia Ludwig’s Angina	Tissue Hyperplasia Dehiscence Cracked /Fractured Teeth Gingival Recession/Tooth Abrasion

peoples, in traditional societies. ‘Back teeth’ extraction for aesthetic purpose was observed among Atayal people of Taiwan.¹¹

Removal of the permanent mandibular central incisors were reported among the Iraq, Warussha and Masai people of Tanzania. Over half of the individuals who had submitted to these teeth provided a route allowing the passage of fluids in the event of a person becoming ill and being unable to open his or her mouth.¹²

Infant Oral Mutilation (IOM)

It is a method of gouging or extirpating a child's primary canine follicles to prevent or treat childhood diarrhoea, vomiting and fever. Mandibular canine follicles are most commonly involved. This procedure is usually performed by traditional healers in a village using crude or non sterile instruments which may cause complications such as severe inflammation, trismus, lacerations, pain, bleeding and even death.¹³

(Table 1)

A study conducted at Lekie Division, Cameroon on the role of traditional healers in tooth extractions concluded that tooth extractions using medicinal plants were well established, infection control during extraction was not the norm. Traditional healers were

willing to assist with oral health workers to improve the oral health of their patients.¹⁴

IOM is known by different names in different countries (Table 2)

Prevalence of IOM

The prevalence of children who have undergone this practice has been reported from a number of different countries (including the Sudan, Somalia, Ethiopia and Uganda) to range from 16% to 87%.¹² Extirpation of the primary canine tooth follicles: A form of infant oral mutilation (IOM) is believed to be extremely rare in developed countries, it is important that dental professionals as well as other para-dental professionals who treat immigrants from areas of the world in which IOM is endemic be aware of the social factors behind this practice as well as be able to recognize its dental and psychological sequelae.¹⁵

Prevalence of primary canine enucleation and associated dental sequelae in UK born Somali children raises important oral health issues and culturally sensitive education is indicated to discourage this harmful ritual practice.¹⁶

Magnitude of tooth bud extraction (TBE) in Uganda was found to be higher in the north and the lower in the south, which suggests that it spread from Northern

Uganda Southwards. TBE in Uganda is a real health problem that needs further investigation and appropriate intervention.¹⁷

A Study on emigrants from Ethiopia showed that prevalence of missing primary canines and dental defects was greater among offspring of parents who had emigrated from Ethiopia 15–20 years earlier than among offspring of native Israeli parents living in the same low socioeconomic neighbourhoods.¹⁸

Lacquering and dyeing of teeth

These practices are related to concepts of beauty and sexual appeal, maturity or to prevent dental decay. Staining of teeth is accomplished by chewing the leaves or bark of specific plant species. Unusual method of staining teeth include the use of insect derived cochineal in central America and the use of resin from an insect-infested peepul tree in Gujarat region of India.⁹ The practice of blackening the teeth was reported among the Jivaro Indian people of Northern Peru and Ecuador which was carried out to prevent dental caries.¹⁹

Dental inlays and crown

The use of dental inlays and crown for adornment purpose is a form of non-therapeutic tooth mutilation encountered among contemporary people within the outside tropics. In general these practices are usually carried out for purposes of beautification to signify wealth or to signify some event. The practice of placing decorative inlays was also carried out in India in previous times. The teeth of important people such as Maharaja's were reportedly inlayed with glass or pearls. The people of ancient Roman civilization were familiar with dental restoration of gold. Among Muslims, the presence of a gold crown on a front tooth is used to signify that the wearer had visited Mecca.⁹

Tattooing of soft tissues

It is a practice more popular in many non-tropical areas of the world largely confined to countries in the region of North Africa and the Middle East. Tattooing of the skin is most commonly encountered. Tattooing of the lip and gingival is occasionally seen. Tattooing of maxillary alveolar gingival is mainly practiced by females especially those belonging to the Muslim faith. According to Gazi the gingiva may be tattooed when females reach puberty or when they become married. This custom may be practiced by men to relieve the pain associated with diseased gums. The technique of gingival tattooing involves the painting the gingiva with a layer of pigmented material (carbon) which is then impregnated into the gingival mucosa by means of sharp thorns or needles which pierce the mucosa. A bluish black coloration is usually achieved with gingival tattoos. This carbonized material used to tattoo the gingiva may be obtained from calcified mass, burned wood or from lamp black.⁹

Oral and Perioral Piercing

During ancient time body beautification, decoration and body art were commonly practiced by human mankind across the cultures for centuries. Today it is most likely an expression of personal independence, fashion or daring.²⁰ There usually no formal religious, tribal, or ornamental purpose. However, some piercings such as tongue, genital, and nipple sites are used for the purpose of increased sexual stimulation. Site for piercing includes tongue, lips, cheeks, frenum or uvula. It has become so prevalent that it is currently or soon will be seen in most dental settings Therefore, it is imperative oral healthcare professionals are familiar with the phenomenon of oral piercing and well aware of the

possible sequelae. Complications resulting from an oral piercing can occur not only during the initial procedure, but at anytime thereafter. It is important for oral healthcare professionals to be aware of these sequelae in order to inform both potential and current pierces and so that complications can be recognized during the oral examination.²⁷ (Table 3)

Tongue piercing can result in hypotensive collapse and also other complication such as life threatening infection, airway problems, damaged teeth or mucosal surfaces .²² A case report on gingival recession due to trauma caused by a lower lip stud resulted in gingival inflammation and also showed that there was close association between the intra-oral component of the stud and area of recession.²³ The therapeutic measures applied on Gingival Recessions Caused by Lip Piercing yielded satisfactory root coverage, an increase in the width of the keratinized gingiva, improvement in hygiene status and absence of dental hypersensitivity .²⁴

A study on awareness of complications of oral piercing in a group of adolescents and young South African adults concluded that the there is general lack of awareness of complications related to oral piercing which needs to be addressed by the dental community.²⁵ It is critical that patients with oral piercing must routinely undergo comprehensive periodontal assessment and clinicians must educate patients about the potential risks regarding the practice of oral piercing.²⁶

Uvulectomy

The traditional practice of Uvulectomy is widespread in Africa. Also occurring in Chad, Niger, Nigeria, Morocco, Tanzania, Kenya, Mali, Ethiopia and Sudan, as well as the Arabian Peninsula. Uvulectomy was most frequently performed at 2-4

months of age in contrast with follicle removal which was most frequent from 4-6 months of age, but occurred throughout the first year. Uvulectomies are performed by a traditional healer, or barber, often with unsterilized instruments. Most commonly performed to treat or prevent vomiting , Respiratory tract symptoms, i.e., coughing and throat pain and Other reason given for Uvulectomy includes influence of grandparents, religious beliefs, failure of modern medicine to treat some chronic diseases failure to thrive to prevent suffocation during pharyngitis in babies.²⁷

Enamel tattoos

Choumps are a rare type of tooth tattoo made in gold and are placed on the tooth enamel, mainly on the labial surfaces of the maxillary anterior teeth. This unique practice of getting the teeth engraved with these tattoos is prevalent among certain tribes of western Uttar Pradesh and Rajasthan, India, specially the Gujjar Tribes, and also some Jaduvanshi Thakurs & Jaat Tribes. This practice is equally prevalent amongst both the sexes and is mainly carried out after the eruption of maxillary permanent incisors. In this practice tooth enamel of the labial surface of upper central incisors are engraved with circular patterns using a hand drill and are later filled with gold. These tattoos are not made by professionals, but rather by a local tattoo maker, better known as a Ferua. Feruas usually come to the villages during festivals or villagers visiting the local fares (Melas) get them done.²⁸

Acculturation and oral health

Acculturation refers to the psychosocial adaptation of persons from their culture of origin to a new or host cultural environment .²⁹ Upon arriving in a new society immigrants are exposed to a new culture

and are subject to a process of acculturation.³⁰ Acculturation has been shown to serve as a proxy for cultural norms and behaviours that affect care-seeking, preventive as well as oral hygiene practices and ultimately health outcomes. A study of Mexican-Americans based on language preferences and self identification, showed that individuals with low acculturation status had a higher prevalence of decayed and missing teeth and higher periodontal disease levels than those with high acculturation. However, only differences in periodontal status remained significant after adjustment for age, sex, education, and income levels and another study suggested that acculturation influenced the care-seeking behaviours of Mexican-Americans, Cuban-Americans, and Puerto Ricans.³¹

A study on relationship between acculturation and use of oral health services among Hispanic adults in the United States reported that acculturation assessed by language spoken was not significantly associated with having had a dental visit in the previous 12 months. The common determinants of health care use, such as sex, income, level of education, and health insurance status, were the most significant predictors of use of oral health services among adult Hispanics³² another study concluded that greater the acculturation, the greater the use of dental services³³ Recent research among Tibetan immigrants in Bangalore city concluded that reducing disparities in oral health status and the use of dental services requires attention to cultural factors such as language barrier and age at migration and immigrant's degree of acculturation.³⁴ MacEntee MI et al 2012 explored how elderly Chinese immigrants value and relate to how acculturation influences oral health and subsequent service use. It was noted that many immigrants obtain dental

treatment in China when they return for occasional visits. They felt that separation of dentistry from national health care programmes in Canada and Australia disregards natural links between oral health and general health. The similarity of concerns in both cities suggests that dissemination of information and availability of services are the important themes influencing oral health, and that, beliefs developed over a lifetime play an important role in interpreting oral health in the host country.³⁵ Cubas YP et al 2013 conducted a study to assess the effect of acculturation in parent and child's perceptions of the child's oral health status and oral health related quality of life (OHRQoL) as well as the effect in the concordance between children and parents/caregivers. The study findings indicate that the more acculturated the child, the more negative their perception of their oral health. The level of disagreement between parent and child, underscores the importance of obtaining both the child and parent OHRQoL perceptions.³⁶

Conclusion

Culture is the basic road map for comprehending the world and it provides the unwritten rules for living. We, the health professionals have to discourage the unhealthy practices through intensive health education and promote the adoption of healthy practices. The primary health workers and school teachers can play a vital role in creating the awareness on the adverse effects of deleterious cultural practices among the general population and students. The mass media in the form of radio, television, newspapers, health exhibitions, role plays etc go a long way in changing the attitude and behaviour of the people. Dental professionals must familiarize themselves with the different cultural practices and

beliefs of their patients to diagnose any condition related to harmful practices in such ethnic groups. People should be made aware of the harmful effects of cultural practices and those that promote health should be encouraged.

References :

1. Gluck G, Morganstein MW. Jong's Community Dental Health. 5th edition. Mosby publications; 2003.
2. Nagaraj A, Ganta S, Yousuf A, Pareek S. Enculturation, Myths and Misconceptions Regarding Oral Health Care Practices among Rural Female Folk of Rajasthan. *Ethno Med* 2014; 8(2): 157-164.
3. Butani Y, Weintraub JA, Barker JC. Oral health-related cultural beliefs for four racial/ethnic groups: Assessment of the literature. *BMC Oral Health* 2008 Sep 15;8:26-39.
4. Indian culture. [Online]. Available from: Accessed from: http://en.wikipedia.org/wiki/culture_of_India [Accessed 3rd March 2015].
5. Doshia D, Reddy BS, Kulkarni S, Karunakar P. Self-reported Attitudes and Beliefs Towards Dental Care Among a South Indian Population. *Oral Health Prev Dent* 2014;2:125- 131.
6. Exley C. Bridging a gap: the (lack of a) sociology of oral health and healthcare. *Sociol Health Illn* 2009;31(7):1093- 1108.
7. Chalooob KE. Oral health status, dental knowledge and behaviors among children and adolescents (8-15) years old in the cities of Baghdad and Thamar. *J Bagh College Dentistry* 2013 December; 25(3):100-103.
8. Sathe PV. A textbook of community dentistry. 1st edition. Paras publishers; 1998.
9. Prabhu SR, Wilson DF, Daftary DK, Johnson NW. Oral diseases in the tropics. 2nd edition. Delhi. Oxford Medical Publications; 1993.
10. Durband AC, Littleton J, Walshe K. Patterns in ritual tooth avulsion at Roonka. *Am J Phys Anthropol*. 2014 Aug; 154(4):479-85.
11. Ring S (1985) cited in Prabhu S.R, Wilson D.F, Daftary DK, Johnson NW. Oral diseases in the tropics. 2nd edition. Delhi. Oxford Medical Publications; 1993.
12. Mosha N (1983) cited in Prabhu S.R, Wilson DF, Daftary D.K, Johnson NW. Oral diseases in the tropics. 2nd edition. Delhi. Oxford Medical Publications; 1993.
13. de Beavis FO, Foster AC, Fuge KN, Whyman RA. Infant oral mutilation: a New Zealand case series. *N Z Dent J* 2011 Jun; 107(2):57-9.
14. Agbor AM, Naidoo S, Mbia AM. The role of traditional healers in tooth extractions in Lekie Division, Cameroon. *J Ethnobiol Ethnomed* 2011 May 30; 7:15-22.
15. dwards PC, Levering L, Wetzel E, Saini TA. Extirpation of the primary canine tooth follicles. A form of infant oral mutilation. *J Am Dent Assoc* 2008 Apr; 139(4):442-50.
16. Rodd HD, Davidson LE. 'Ilko dacowo': canine enucleation and dental sequelae in Somali children. *Int J Paediatr Dent* 2000 Dec; 10(4):290-7.
17. Tirwomwe JF, Agwu E, Ssamula M. The magnitude of tooth bud extraction in Uganda. *Int J Med Med Sci* 2013 October; 5(10) : 450-455.
18. Davidovich E, Kooby E, Shapira J, Ram D. The traditional practice of canine bud removal in the offspring of Ethiopian immigrants. *BMC Oral Health* 2013; 13:34-37.

19. Elvin-Lewis and Lewis(1983) cited in Prabhu S.R, Wilson D.F, Daftary D.K, Johnson N.W. Oral diseases in the tropics. 2nd edition.Delhi. Oxford Medical Publications;1993.
20. Michael A. Oral/perioral piercing.Quintessence Int 2003;9:722-21.
21. PeticolasT, TillissTS, Cross-Poline GN. Oral and perioral piercing: a unique form of self-expression. J Contemp Dent Pract 2000 Aug 15;1(3):30-46.
22. Hardee PS, Mallya LR, Hutchison IL. Tongue piercing in hypotensive collapse. Br Dent J 2000 Jun 24; 188(12):657-8.
23. O 'Dwyer JJ, Readmans P. Gingival Recessions due to trauma Caused by lip stud.Br Den J 2002 Jun15;192(11):615-616.
24. Chambrone L, Chambrone L A. Gingival Recessions Caused by Lip Piercing:Case Report. J Can Dent Assoc 2003; 69(8):505-8.
25. Oberholzer TG, Georg E R. Awareness of complications of oral piercing in a group of adolescents and young South African adults. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2010 Dec;110(6):744-7.
26. Brooks JK, Hooper KA, Reynolds MA Formation of mucogingival defects associated with intraoral and perioral piercing: case reports. J Am Dent Assoc. 2003 Jul;134(7):837-43.
27. Johnston NL, Riordan PJ. Tooth follicle extirpation and uvulectomy. Aust Dent J 2005 Dec;50(4):267-72.
28. Kumar CA, Hemant S. "CHOUMPS" ENAMEL TATTOOS. J Forensic Odontostomatol 2007;25:61-62.
29. Wells KB, Golding JM,Hough RL, Burnam MA, Karno M. Acculturation and the Probability of Use of Health Services by Mexican Americans. Health Serv Res 1989 June; 24(2):237-257.
30. Gao XL, McGrath CA Review on the Oral Health Impacts of Acculturation. J Immigr Minor Health 2011 Apr; 13(2):202-13.
31. Cruz GD, Shore R, Le Geros RZ. Tavares M. Effect of Acculturation on Objective Measures of Oral Health in Haitian Immigrants in New York City. J Dent Res 2004 83(2):180-184.
32. Jaramillo F,Eke PI,Thornton-Evans GO, Griffin SO. Acculturation and Dental Visits Among Hispanic Adults. Prev Chronic Dis 2009 April; 6(2): 1-7.
33. Zhang W. Chinese culture and dental behaviour: some observations from Wellington. N Z Dent J 2009 Mar; 105(1):22-7.
34. Radha G, Pushpanjali K, Aruna CN. Acculturation and oral health status among tibetan immigrants residing in Bangalore City India. J Clin Exp Dent 2011;3(4):274-9.
35. MacEntee M , Marin R, Wong S, Kiyak A, Minichiell V, Chi I,Edward CML , Huancai L. Discussions on oral health care among elderly Chinese immigrants in Melbourne and Vancouver. Gerodontology 2012; 29: 822-832.
36. Cubas YP, Orellana MF. The effect of acculturation in the concordance of oral health related quality of life in Latino children and their parents. Open J Epidemiol 2013;3: 95-104.